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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/828,980 | 04/21/2004 | Robert Lombardi | 0263421-0044 | 6924 |
| 24280 | 7590 | 05/01/2007 | | |
| CHOATE, HALL & STEWART LLP TWO INTERNATIONAL PLACE BOSTON, MA 02110 | | | EXAMINER GROSSO, HARRY A | |
| | | | ART UNIT | PAPER NUMBER |
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| | | | 05/01/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

ED

Office Action Summary

Application No.

10/828,980

Applicant(s)

LOMBARI, ROBERT

Examiner

Harry A. Grosso

Art Unit

3781

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) 7 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1) <input type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application</p> <p>6) <input type="checkbox"/> Other: _____.</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

DETAILED ACTION

Claim Objections

The objection to Claim 7 has been overcome by the amendment filed February 2, 2007. The objection is withdrawn.

Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: It does not state that the person making the oath or declaration acknowledges the duty to disclose to the Office all information known to the person to be material to patentability as defined in 37 CFR 1.56. Declaration refers to information which is material to "examination".

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2 and 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Carter (2004/017362, September 9, 2004).

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3. Regarding claim 1, Carter discloses a bladder for an expansion tank (Figure 6, paragraphs 0062-0063) with a non-flexible diaphragm (402) and a flexible diaphragm (404) that are sealed to one another at their peripheral edges.
4. Regarding claim 2, Carter discloses the diaphragms are heat sealed to each other (paragraphs 0062 and 0029).
5. Regarding claim 4, Carter discloses an expansion tank with an outer shell (Figures 6 and 8, paragraph 0072), a flow through connector (408) providing fluidic communication between the interior of the bladder and the exterior of the tank, a non-flexible diaphragm (402) positioned between the connector and the flexible diaphragm (404). The diaphragms are sealed to one another at their peripheral edges and the space within the bladder is fluidically isolated from the space between the bladder and the outer shell.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carter in view of Hilverdink (4,784,181). Carter discloses the invention as discussed above but does not teach the use of a clench ring and a circumferential recess and groove in the peripheral edges of the diaphragms in the embodiment cited but does disclose that

other techniques described therein can be used. Carter, in another embodiment, teaches the use of a clench ring to secure the peripheral edges of the diaphragms (Figure 3) and Hilverdink discloses the use of a recess and a groove in the peripheral edges of the diaphragms in conjunction with a clench ring to provide a very reliable seal (Figure 4, column 4, lines 3-6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the use of a clench ring and a circumferential recess and groove in the peripheral edges of the diaphragms as disclosed by Carter and Hilverdink in the bladder disclosed by Carter because it is known in the art to use this technique to provide a very reliable seal.

1. Claims 1- 4, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hilverdink in view of Carter.

8. Regarding claims 1 and 4, Hilverdink discloses an expansion tank with a bladder comprising two diaphragms disposed within (Figure 1) that are sealed to one another at their peripheral edges and a flow-through connector (6) providing fluidic communication between the interior of the bladder and the exterior of the tank.

Hilverdink does not teach the use of a flexible diaphragm and a non-flexible diaphragm. Carter discloses an expansion tank with a similar bladder (Figure 6) having a flexible diaphragm and a non-flexible diaphragm that is connected to a flow-through connector (paragraphs 0062-0063) that allows the non-flexible diaphragm to be made of a material that reduces costs for the diaphragm assembly. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the use of a flexible diaphragm and a non-flexible diaphragm as disclosed

by Carter in the bladder disclosed by Hilverdink to reduce costs for the diaphragm assembly.

9. Regarding claim 2, Hilverdink does not teach heat sealing the peripheral edges of the diaphragm together. Carter discloses the diaphragms can be sealed together using various techniques including heat sealing (paragraphs 0062 and 0029). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the use of heat sealing to seal the diaphragms together as disclosed by Carter in the tank disclosed by Hilverdink to eliminate the need for the clench ring.

10. Regarding claim 3, Hilverdink discloses the use of a recess and a groove in the peripheral edges of the diaphragms in conjunction with a clench ring to provide a seal (Figure 4, column 4, lines 3-6).

11. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lombardi et al (6,263,247) (Lombardi) in view of Carter.

12. Regarding claim 4, Lombardi discloses a tank with a bladder (600A) and a flow through connector (Figures 4A, 4B, 7A, 7B, 8) providing fluidic communication between the interior of the bladder and the exterior of the tank, Lombardi does not teach the bladder has a non-flexible and a flexible diaphragm. Carter discloses a similar tank structure (Figures 3-5) with a flexible and a non-flexible diaphragm and a flow through connector (356) provides a path through the non-flexible diaphragm. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have

incorporated the use of a flexible and a non-flexible diaphragm as disclosed by Carter in the tank disclosed by Lombari to reduce the materials costs for the bladder assembly.

13. Regarding claim 5, Lombari discloses the connector having a nipple (400) with first and second ends and a plurality of tabs (431-435, column 5, lines 39-48) on the nipple manipulable between an insertion position and a securing position.

14. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lombari as modified by Carter in view of Stilwell (3,247,999). Lombari and Carter disclose the invention and Lombari further discloses an o-ring to seal the edge on one side of the bladder adjacent the flow connector but does not teach the use of an o-ring between both a first retainer ring and the bladder and a second retainer ring and the bladder. Stilwell discloses a flow-through connector with a nipple (14, Figure 5), a first retainer ring (15), a second retainer ring (17) and o-rings between both a first retainer ring and the bladder and a second retainer ring and the bladder (Figure 5, column 3, lines 10-15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the use of o-rings between both a first retainer ring and the bladder and a second retainer ring and the bladder as disclosed by Stilwell in the connector disclosed by Lombari to provide a compressible seal on both sides of the diaphragm to better prevent leakage.

Double Patenting

15. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct

from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

16. Claims 1, 2 and 4-6 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 17 of copending Application No. 11/248,537. Although the conflicting claims are not identical, they are not patentably distinct from each other because all of the structure required by the instant application is taught by the copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

17. Claim 3 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 of copending Application No. 11/248, 537 in view of Hilverdink. Claim 1 of the copending application teaches all of the structure required except for the use of a clench ring and a circumferential recess and groove in the peripheral edges of the diaphragms. Hilverdink discloses the use of a clench ring and a recess and a groove in the peripheral edges of the diaphragms in conjunction with a clench ring to provide a very reliable seal (Figure 4, column 4, lines

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3-6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the use of a clench ring and a circumferential recess and groove in the peripheral edges of the diaphragms as disclosed by Hilverdink because it is known in the art to use this technique to provide a very reliable seal.

This is a provisional obviousness-type double patenting rejection.

Allowable Subject Matter

18. Claims 7 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

19. The declaration filed on February 2, 2007 under 37 CFR 1.131 has been considered but is ineffective to overcome the Carter reference.

20. The Carter reference is a U.S. patent or U.S. patent application publication of a pending or patented application that claims the rejected invention. An affidavit or declaration is inappropriate under 37 CFR 1.131(a) when the reference is claiming the same patentable invention, see MPEP § 2306. If the reference and this application are not commonly owned, the reference can only be overcome by establishing priority of invention through interference proceedings. See MPEP Chapter 2300 for information on initiating interference proceedings. If the reference and this application are commonly owned, the reference may be disqualified as prior art by an affidavit or declaration under 37 CFR 1.130. See MPEP § 718.

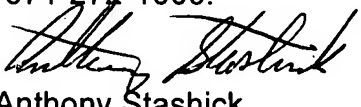
Conclusion

This action is made non-final because it contains new grounds of rejection, the double patenting rejection, not necessitated by applicant's amendment.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harry A. Grosso whose telephone number is 571-272-4539. The examiner can normally be reached on Monday through Thursday from 7am to 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on 571-272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Anthony Stashick
Supervisory Patent Examiner
Art Unit 3781

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